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# Zacks Small-Cap Research

*Sponsored – Impartial - Comprehensive*

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## CTS Corp (CTS-NYSE)

**CTS: Fourth quarter revenue was slightly above our estimate with adjusted EPS spot on.**

Compared to other companies in its industry CTS appears slightly undervalued. However, the increasing order flow and resulting growth in earning does not appear to be reflected in its valuation parameters.

### OUTLOOK

After a successful restructuring CTS Corp. is consolidating its operations, improving gross margins, and is poised to resume growth. Recent orders are growing rapidly. It is finding new opportunities for its sensor portfolio, piezo ceramic technologies and ClearPlex technology for electronic filtering while it refreshes older product lines which should drive growth in 2016 and beyond. By 2017, 2014 automotive design wins are expected to kick in to accelerate growth from current levels. Our price target is $28 a share.

| | |
|---|---|
| Current Price (02/05/18) | $26.70 |
| **Valuation** | **$28.00** |

### SUMMARY DATA

| | |
|---|---|
| **52-Week High** | **$28.45** |
| **52-Week Low** | **$19.40** |
| **One-Year Return (%)** | **27.1** |
| **Beta** | **1.3** |
| **Average Daily Volume (sh)** | **91,950** |
| **Shares Outstanding (mil)** | **32.9** |
| **Market Capitalization ($mil)** | **$880** |
| **Short Interest Ratio (days)** | **N/A** |
| **Institutional Ownership (%)** | **95** |
| **Insider Ownership (%)** | **2** |
| **Annual Cash Dividend** | **$0.16** |
| **Dividend Yield (%)** | **0.59** |
| **5-Yr. Historical Growth Rates** | |
| **Sales (%)** | **-9.1** |
| **Earnings Per Share (%)** | **9.8** |
| **Dividend (%)** | **2.1** |
| **P/E using TTM EPS** | **62.8** |
| **P/E using 2018 Estimate** | **20.2** |
| **P/E using 2019 Estimate** | **18.8** |

| | |
|---|---|
| **Risk Level** | **Average,** |
| **Type of Stock** | **Mid-Blend** |
| **Industry** | **Elec-Misc Comp.** |
| **Zacks Rank in Industry** | **N/A** |

### ZACKS ESTIMATES

**Revenue**
(in millions of $)

| | Q1 (Mar) | Q2 (Jun) | Q3 (Sep) | Q4 (Dec) | Year (Dec) |
|---|---|---|---|---|---|
| **2016** | **96.7 A** | **98.7 A** | **99.7 A** | **101.6 A** | **396.7 A** |
| **2017** | **100.2 A** | **105.7 A** | **106.2 A** | **110.9 A** | **423.0 A** |
| **2018** | **105.2 E** | **111.0 E** | **111.6 E** | **116.5 E** | **444.1 E** |
| **2019** | **110.4 E** | **116.5 E** | **117.1 E** | **122.3 E** | **466.3 E** |

**Price/Sales Ratio (Industry = 2.5x)**

| | Q1 (Mar) | Q2 (Jun) | Q3 (Sep) | Q4 (Dec) | Year (Dec) |
|---|---|---|---|---|---|
| **2016** | **$0.24A** | **$0.23A** | **$0.17A** | **$0.25A** | **$0.88A** |
| **2017** | **$0.25A** | **$0.30A** | **$0.29A** | **-$0.41A** | **$0.43A** |
| **2018** | **$0.30E** | **$0.33E** | **$0.34E** | **$0.36E** | **$1.32E** |
| **2019** | **$0.33E** | **$0.36E** | **$0.36E** | **$0.39E** | **$1.44E** |

Zacks Projected EPS Growth Rate - Next 5 Years % **12**

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## RECENT EVENTS

CTS Corp. announced its fourth quarter and full year results, followed by a conference call on Jan. 06, 2018.

Revenue in the fourth quarter was slightly better than expected at $111 million, (Est. $107 million) and net income was $9 million (Est. $9 million). The results were clouded by a series on factors, primarily a $18 million non-cash charge related to the new Tax Bill and $13.4 million in non-cash charges for pension settlements. We added back these items and applied a normalized tax rate to compare actual results to our estimates.

Including the Noliac acquisition sales increased by 9.2% Y/Y in the quarter, 6.2 % Y/Y. Without the acquisition the growth was 6.2%. Electronic components increased by 12.75 and sales to automotive and truck customers were up 7.3%, a very credible performance given the problems of the auto industry worldwide. Defense and aerospace sales increased close to 9%.

Currency fluctuations continue. A weak dollar as compared to the renminbi and the euro had a positive $1.2 million impact in Q4.

CTS added 6 new customers in the fourth quarter bringing the total to 20 for the full year. Backlog increased slightly from third quarter levels to $1.737 billion. This included wins in the transportation sector. The shippable portion (that amount currently "sold" but not delivered) is $351 million leaving only about $85 million of new sales needed to meet the targets.

In 2018 the company will continue to work on improving gross margins and controlling operating expenses. A new ERP system will be introduced. It will spend some money on working to reduce the overall tax rate.

Projections for 2018 are for revenue between $435 to $455 million (our estimate was, and remains $444 million) and adjusted diluted EPS between $1.32 to $1.44. After adjusting for the new tax rate our estimate is $1.32 per share.

On Oct. 26, 2017 CTS Corp. reported its third quarter 2017 results, followed by a conference call.

Revenue and earnings were close to our expectations with revenue of $106.2 million ($105 Est.) and net income of $0.29 a share ($0.27 Est.). The company has refined its full year projections to $415 to $420 million in revenue and $1.13 to $1.18 in adjusted earnings per share. Our numbers are on an as reported GAAP basis.

Organic growth was close to 4% and acquisitions added 2.6%. Gross margins were reduced by currency fluctuations, just over $0.6 million, mainly due to changes in the Mexican peso. Changes in the renminbi (quarter end valuation on the balance sheet) had a negative impact which we treat as a non-operating item. The backlog to last quarter revenue ratio improved to 16, its highest point this year.

On a year/year basis auto related sales increased 5.8%. Given the current state of US car sales this was a excellent result. Much of the current sales mix is new technology with some long tailed sales on mature programs. Truck related business was very good. Sales to Cummins Inc. (CMI $179.03) increased from $29.9 to $38.5 million; Toyota (TM $123.83) form $9.9 to $10.5 million and Honda (HMC $30.82) from$10.5 to $12.4 million on a Y/Y basis. Electronic components increased by 7.9%, aided by the acquisition of Noliac. The hard drive market continues to decline as solid state drives gain market share.

CTS discussed its target of 10% annual organic revenue growth. Manufacturing and supply chain efficiencies should have positive impacts on gross margins. As auto and HDD become smaller parts of the mix and the addition any acquisitions there is significant potential for CAGR earnings growth in excess of 15%.

The company is changing its strategic thrust to respond to the mandates regarding Electric Vehicles. This will require a significant input from R&D since each EV propulsion technology has its own challenges.

Second quarter revenue of $105.7 million included $1.5 million of sales from Noliac, the recent acquisition. Organic growth was 5.3%, well ahead of the 3.6% in the first quarter 2017. Reported EPS of $0.30 was ahead of our projections of $0.28. Backlog of $1,542 million was up slightly from the end of the first quarter. Earnings included about $1 million in costs from first quarter rework costs, which had a negative impact on margins.

CTS added 6 new customers in the quarter and received the largest order in its history, $2.7 million, which will be added to the third quarter backlog.

Most end markets showed continued growth with China the best, Europe had modest growth and the U.S.A. being impacted by the declining automotive markets. Some domestic auto companies are holding back on orders due to market uncertainties.

CTS Corporation has acquired Noliac A/S, a small designer and manufacturer of tape cast and bulk piezoelectric components. Tape casting is the conversion of ceramic powder to thin films which are then used to make stacked actuators and other components. The process is also used in the production of capacitors, polymer batteries and photovoltaics. Films as thin as one millionth of a meter can be produced using tape casting and multiple layers can be cast. Noliac gives CTS access to a ceramic foundry in the EU.

Noliac, headquartered in Denmark, with manufacturing in Denmark and the Czech Republic, sells to OEMs in aerospace and defense, medical, test and measurement and industrial markets. As such it provides CTS with access to new customers in many of its established markets and with an entry into Eastern Europe.

This is a small company but of strategic importance. We have not made any changes to our estimates based on this acquisition.

April auto and truck production continue the decline apparent over the last three months. Cars were down the most but light trucks did better with a modest gain in production.

CTS has a significant exposure to the automobile and truck industry. In the 1Q17 Cummings [ CMI ] was the largest customer ($12.9 million, 12.9%); Toyota second ($10.8 million, 10.8%) and Honda was third ($9.8 million, 9.8%). On a Y/Y basis sales to Cummings increased by 27%, Toyota was up by nearly 5% and Honda declined by slightly more than 13%. Since we do not know the geographical dispersion, product mix or sales by vehicle we look at the trends across each vehicle manufacturer and adjust our forecasts accordingly.

Heavy duty, class 8 , trucks increased by 4% from February and over 70% Y/Y, classes 5 through 7 dropped by 25% Q/Q and 10% Y/Y. As a supplier to the class 8 truck segment CTS benefitted from the gains in this segment.

Auto and light trucks were a mixed bag, with light trucks doing much better than autos. Toyota outperformed the auto segment but sales declined 3.5%. The Camry was down 7.7% but the RAV4 (unit sales for these are very close to each other) was up 5.3%. Overall Toyota's truck sales increased by 2.1%.

Honda lagged the industry. Its two major products both fell by more than 10%. The Civic was down 11.7% and the Accord fell by 14.6%.

We had factored a declining outlook for auto and light truck sales on a worldwide basis, with a two year decline from the 2016 peak. Our forecasts are at the low end of the company's guidance and we are not changing our estimates at this time.

First quarter 2017 results were announced early morning on April 27, 2017Full year 2016 financials were reported on Feb. 07, 2017 with a conference call later in the morning.

Both revenue and earnings were in line with our estimates. Currency fluctuations in Asia had a negative impact on revenue of $0.9 million. Without this, revenue would have beaten our numbers. Earnings (GAAP basis) were spot on our estimate.

Cash flow was positive resulting in a cash position of $122 million at the end of the first quarter, up from $114 million at year end 2016. Cash less debt increased by $4 million. Due to the transition of manufacturing from Indiana to Illinois the company had increased inventory so that customer needs would be met. We estimate this to be about $1.5 million and the second quarter could increase further. CTS  Corp. is in good financial shape.

As we had expected the US auto manufacturers had built inventory in the face of weakening demand. However, CTS has a strong position with Honda and Toyota (about 20% of total revenue) and they are in better shape. CTS expects continued weakness in the US, offset (for CTS) by new product introductions over the next two years.

New customers in the medical and defense industries. plus new products for the 5G cellular industry, should offset the continued problems of the hard drive industry.

The tax rate was reduced slightly to 30.6%, well below the more usual 35%. The company expects the tax rate to increase slightly over the next three quarters to bring the annual rate closer to the historical number.

CTS Corp. has changed its reporting on orders. It will now report the order backlog at the end of each quarter. This was $1,518 million at the end of 4Q16 and it increased to $1,538 million at the end of the 1Q17. This increase strengthens the outlook and the company affirmed is guidance of sales between $405 million to $420 million and earnings between $112 and $1.22 a share.

Revenue in the fourth quarter was slightly below our estimate but gross margins increased again and operating expenses were below our estimates (we exclude restructuring and impairment charges from operating results and including them in other income). Operating income and pretax income were above our forecasts. The strong US dollar versus the renminbi had a negative impact on currency holdings and revenue from China but other areas did benefit from lower costs as local currencies declined against the dollar.

The hard drive business for CTS continues to decline in absolute terms as solid state drives make inroads into the market. No new investments are likely in this area.

Despite the current production cutbacks in auto production, and changes in forecasts for the 2017 calendar year, new contracts  should offset a poor auto market and we expect minimal impact on CTS's auto related business. Over 75% of the companies new order flow was in auto related areas.

New orders increased substantially from year ago levels, up 25% to $132 million. CTS will move from announcing new orders to a bookings number. This is a more conventional number for capital goods companies. The current book includes new business to be delivered in the next twelve months plus firm orders on longer term business contracts. At the end of 2016 bookings were $1,518 million.

Cisco has announced that a clock signal components used in many of its, and its competitors, routers is defective. CTS is a supplier to Cisco but there are no known problems with any of its products sold to Cisco (which is not a major customer).

We believe that the new level of gross margins is not only sustainable but will improve as the product mix moves towards the components and medical area. CTS intends to adopt some measures to reduce its tax rate, which has been volatile over the last two years, from a normalized level in the mid-30%s down to the lower-30s level over the next two to three years.

CTS Corp. announced its 3Q16 results followed by a conference call on October 28, 2016.Both sales and gross profits exceeded our expectations. Gross margins of 36.8% were the highest they had been in any quarter over the last five years. Operating expenses were close to our estimates so operating profits were $14.3 million as compared to the $10.2 million we had estimated. The product mix improved as compared to prior quarters and foreign exchange conversions were positive, in part due to the decline in the Mexican Peso.

New orders were $103 million, of which 65% were auto related, including a new customer in China. Component orders were $27 million with solid growth in the medical sector.

Sales to the HDD industry declined 21%, somewhat better than the 30% plus declines of prior quarters. The HDD industry suffers from the problems all technology has when the impact of Moore's Law (performance doubles every 18 months with no increase in cost) drives hard drive sizes above that needed by the majority of users. We do not see any relief from declining volumes in this area.

There were two major onetime additional tax expenses totaling $3.6 million ($0.11 a share) that drove the tax rate to 68.3%. These were due to revaluations of US Federal and State deferred taxes. The tax rate should return to about 35% in 4Q16 as was accrued in the first two quarters of 2016.

On July 29, 2016 CTS Corp. announce its second quarter 2016 financial results. New awards increased to above our expectations but continued softness in the hard disk drive market, as evidenced by comments from Western Digital Corp. [WDC $47.27], had a negative impact on revenue. Some end of program sales in the heavy truck market also had a negative impact on revenue. This was offset by the inclusion of revenue from CTG Advanced Materials, $3.1 million in 2Q16.

New awards continue to increase from the low of the 3Q15, with the auto industry accounting for $109 million and five new customers. This included a new auto OEM in Europe and five new customers outside of the auto industry, one of which is a telephone company.

Exchange rate changes has a negative impact on revenue. The BREXIT vote on June 23, 2016, which caused significant declines in the UK Pound and the Euro, did impact the balance sheet but the full impact on revenue and expenses will be in the third quarter.

Gross margins held up well considering all of the problems, with both Y/Y and Q-Q gains. Operating margins before gains in sales of assets and restructuring charges also increased for both periods, which is a very positive sign.

The company has announced that it will phase out production at the Elkhart, Indiana manufacturing plant and use the location for a research and development center. CTS's corporate HQ is located in Elkhart, Indiana but its administrative offices are in a 37,300 sq.ft. leased facility in Lisle, Illinois. The Elkhart facilities include the 319,000 sq.ft. manufacturing facility and a 93,000 sq.ft. facility that is idle at this time. CTS owns both of these properties. In the SEC 8K documents filed yesterday he company stated that production will be phased out by mid-2018 and will cost close to $17 million. On completion of the restructuring plan annual savings are expected to save between $6 - $8 million a year. We do not know the exact timing of the charges or the rate at which the savings will accrue as income. So we have assumed the cost will be spread equally over the period from the 3Q16 to the 4Q18, at $1.6 million per quarter. We have added a profit of $1 million in 2Q18, $1.5 million in 3Q18 and $2 million in each subsequent quarter. We know this will not be an accurate number but at this time we have no other data available. Since there are probably labor negotiations involved the costs will vary from our timetable.

CTS Corp. announced its first quarter 2016 results early morning on May 03, 2016 followed by a conference call. Results were in line with our estimates, Revenue was $96.7, slightly above our estimate of $96 but well above street consensus. Earnings of $0.24 a share was also above consensus but the same as our published number of $0.26 a share.

Business was good, revenue grew sequentially again with auto related sales up but computer hard drive components were down, as expected. The recent acquisition of CTG was completed but did not have a significant impact on the first quarter. The growth rate of CTG exceeds 10% a year (revenue) and its gross margins are better that the other areas. Medical is an important area for CTG, where CTS had $11 million in revenue last year and this should have above average profitability for CTS.

Productivity, cost containment and favorable currency translations resulted in an improvement in gross margins from 4Q15 levels. When results are CTG are included we expect a further, modest, gain in gross margins. There may be other nonrecurring expenses from the acquisition in 2Q16 depending on decisions by the accountants. We have not included these in our current estimates.

CTS has moved more cash out of China that will be used to finance growth outside the US and repatriated cash from Canada and the UK into the USA. Most of the redirection of cash has been done. These moves should reduce earnings fluctuations due to currency exposure.

The tax rate in the 1Q16 was higher than normal at 34%. This rate should be the annual 2016 rate.

On March 14, 2016 CTS announced that it had acquired CTG Advanced Materials, LLC from Blue Wolf Capital Fund II, LP for $73 million. CTG-AM is a leading designer and producer of single crystal piezoelectric materials and is the only company that is fully vertically integrated in its proprietary manufacturing process. With this acquisition CTS will also gain access to significant intellectual property.

Piezoelectric materials have the property of producing an electric current if pressure is applied to it, or, conversely it will deform if an electric current is applied. Such crystals are used in many medical applications like 3D ultrasound imaging, wireless pacemakers and hearing aids. Other uses of piezoelectric materials are in timing devices (watches) and cellular radio stations.

Continued declines in the Chinese and European currencies impacted the fourth quarter of 2015. CTS has decided to repatriate overseas cash by paying itself a dividend from China, the UK and Canada thereby incurring a tax liability of $8.8 million. Since some of the company's prior losses no longer have a NOL another $2.5 million was charged to taxes for a total of $13 million. Normalizing the tax rate and adding back the restructuring and impairment charges resulted in earnings of $0.27 a share as compared to our estimate of $0.26. This included a charge of $1.6 million for the decline in currencies.

On Nov. 09, 2015 the company announced that it had been awarded a new production program to supply accelerator pedal modules to a major OEM in the European and Asian markets. CTS already has programs with Renault and had announced earlier that there was a new program in Europe but had not disclosed who it was (see the customer chart on page 6).This is about $23 in total at this time, spread over 5 years with shipments starting in 2018.

CTS has acquired Filter Sensing Technology (FST), an eight year old company based in Cambridge , Massachusetts. The company has developed technology that measures the levels of soot and ash in the Diesel Particulate Filter (DPF), both on and off road diesel engines. The buildup of ash in the filter affects fuel consumption and the life of the filter. FST also has the technology to break up the ash that is plugging the filter, restoring the filter to an as-new condition and extending the life of the filter with reduced maintenance expense and lower replacement costs over the life of the vehicle.

The radio frequency (RF) sensors developed by the company can be used to measure the composition of gases and liquids within an engine and in many process control systems within, for example, a petroleum refinery.

**Future Acquisitions Could Add Significantly to Revenues**

The company is has $130 million in cash, albeit almost all overseas, and plans to use some of it to acquire companies that can:

- lessen its dependence on the light vehicle automotive market
- improve its manufacturing cost structure
- increase exposure to faster growth markets
- reduce taxes, because anywhere else in the world it could invest, would have a lower tax rate than the US.

If we assume that the company can make accretive acquisitions with its excess cash we estimate that it could use $100 million for acquisitions. Using comps of smaller companies the median value of EV/Revenue is 0.67. At that valuation the company could add about $150 million in revenue without any financial strain. However, in the space CTS is shopping, revenue multiples could be much higher. This has been the main reason the company has yet to buy as it finds prices historically high and believes that the auto cycle is at a peak, leading to extreme valuation at this point in time. Alternatively, this might make CTS itself a good acquisition target based on its relatively low revenue multiple.

As a comparison, Sensata Technologies acquired Schrader International, the leader in tire sensors, last year for $1 billion. Schrader was expected to generate $550 in revenue in 2014 giving it a valuation of 1.8 times enterprise value to sales. It also bought DeltaTech Controls for $190 million with the expectation of $125 million in revenues or a 1.5 times sales valuation.

## INVESTMENT THESIS

- By reducing its physical locations to 11 (once the Canadian move is complete) lower cost manufacturing facilities, the company is boosting operating margins and has reduced its tax rate.
- The company is now focused on higher margin products and reducing its dependence on the automotive market which could reduce fluctuations in results while increasing its total addressable market.
- With $147 million in cash on the balance sheet (albeit overseas), the company is in an excellent position to pursue growth through acquisition. We believe the company has enough excess cash to buy companies totally upwards of $100 million in incremental revenue.
- New products and the refresh of old products could add to revenues later this year although it could be dampened by currency translation.
- The company has already booked automotive design wins that will develop into meaningful revenues two years out. Based on current design wins, 2017 should show stronger growth.

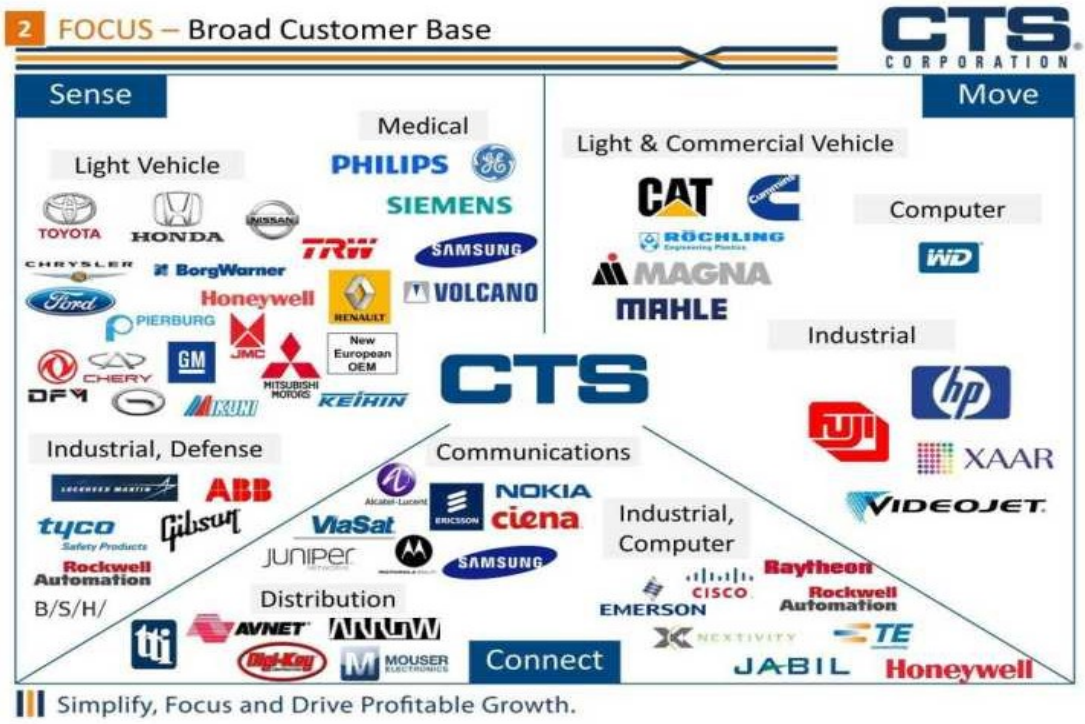
- Once the US Dollar stabilizes against the Euro and the Yuan the company will exhibit much greater sales and earnings growth.

## COMPANY BACKGROUND

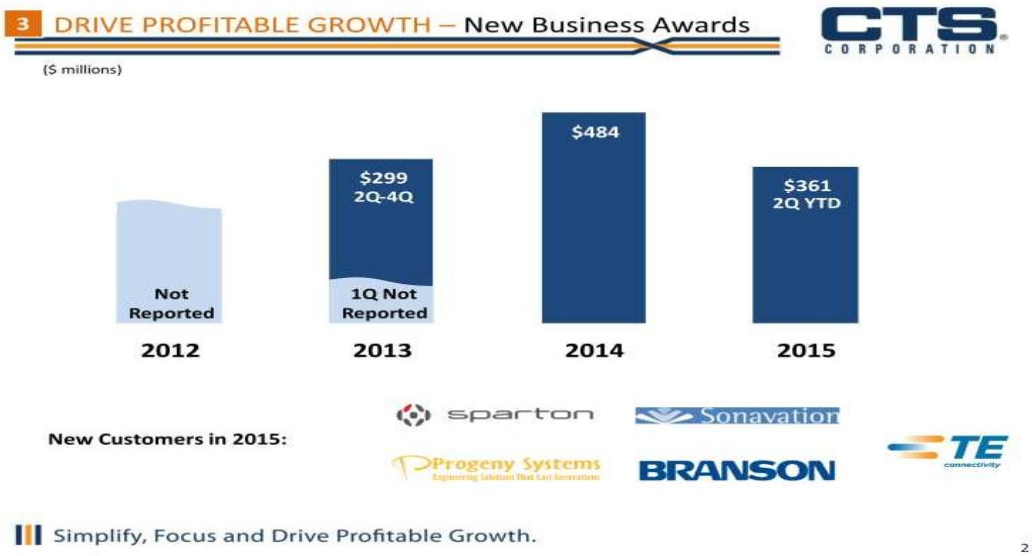
CTS Corporation (CTS) designs, manufactures, assembles, and sells electronic components and sensors worldwide. Over 65% of revenues are sold to the light vehicle automotive market, but the company is working to reduce that percentage. It has found new customers and markets for existing products. It designs and manufactures an extensive line of vehicle sensors and actuators used in powertrain, safety, fuel and emissions control systems; ceramic and crystal-based engineered electronic components used primarily in wireless communications infrastructure equipment, and piezoelectric materials, heat management and resistive-based components used in medical, defense and aerospace, computer, consumer and industrial equipment applications. On October 3, 2013, its Electronics Manufacturing Solutions (EMS) business was sold for $75 million in cash. The company used the cash generated from the sale to pay down debt and as a war chest for potential acquisitions.

| CTS Corp. | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| Fiscal Year Dec. 31. | | | R | R | |
| Trnsportation | $179.7 | $270.3 | $270.7 | $256.1 | $261.8 |
| % change | | | | | |
| Communications | $30.5 | $24.6 | $16.2 | $11.5 | $7.9 |
| Information Technology | $18.3 | $24.6 | $24.2 | $19.1 | $15.9 |
| Medical | $9.1 | $8.2 | $8.1 | $11.5 | $27.8 |
| Industrial | $39.6 | $53.2 | $68.7 | $65.0 | $67.4 |
| Defense & Aerospace | $15.2 | $16.4 | $16.2 | $19.1 | $15.9 |
| Other | $12.2 | $12.3 | $0.0 | $0.0 | $0.0 |
| All revenue | **$304.5** | **$409.5** | **$404.0** | **$382.3** | **$396.7** |
| US sales | **$121.8** | **$204.8** | **$234.3** | **$238.8** | **$276.0** |
| Non US sales | **$182.7** | **$204.8** | **$169.7** | **$143.3** | **$120.6** |
| Non US assets | **$224.5** | **$192.1** | **$38.4** | **$37.8** | **$39.6** |
| Revised in 2016 | | | | | |

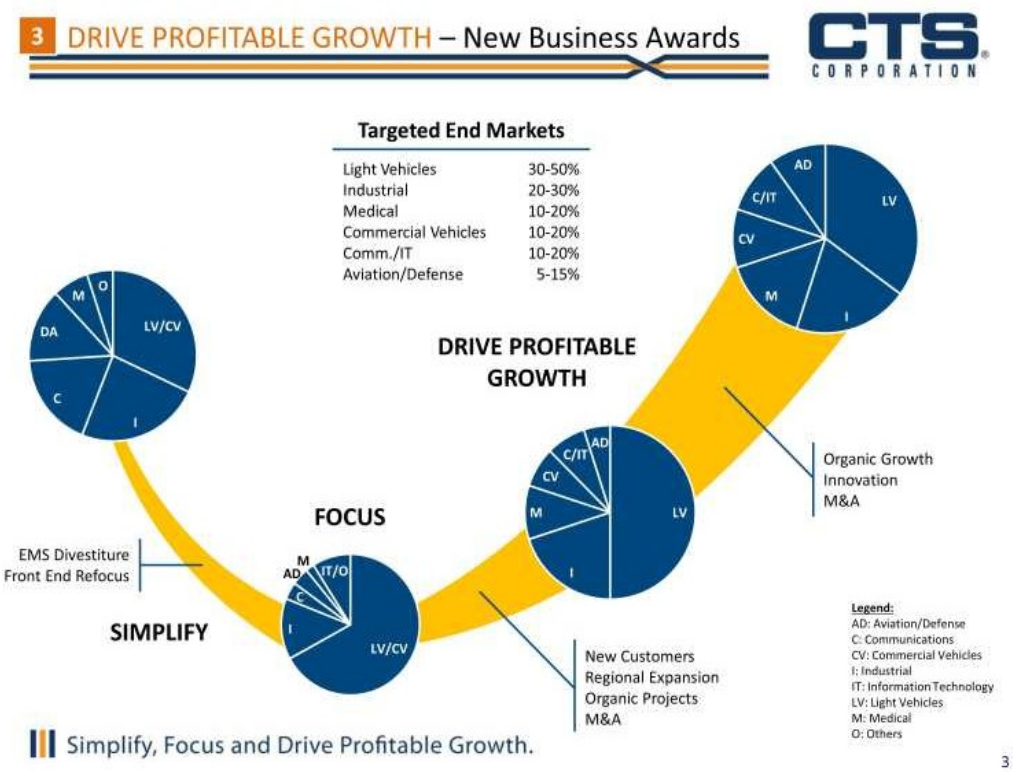
## A diverse customer base:




**with an accelerating order flow:**




**Will propel revenue and profits to higher levels.**




## VALUATION

Compared to other companies in its industry, CTS appears slightly undervalued. However, the increasing order flow and resulting growth in earning does not appear to be reflected in its valuation parameters. The stock is selling at a discount to the median EV/EBITDA for the groups and should be valued closer to the median values.

Sensata Technologies is a specialist in sensors and enjoys a much higher profit margin than the others, as well as a higher growth rate fueled by both internal growth and acquisitions. CTS's move towards a higher margin higher growth business given its focus in sensors and similar products it may be valued more like Sensata Technologies (ST) .

As  supplier to the automobile industry CTS customers may be subject to civil and regulatory law suits. In the case of Toyota CTS Corp. has been indemnified by Toyota against any claims. We do not think that this lawsuit should have any impact on the price of the company's stock.

| COMPARISON TABLE | Ticker | Price | Mkt | ROE | P/E | P/E | P/B | P/S | EV/Rev. | EV/EBITDA | PEG | Inst. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2/6/18 | Cap | (%) | L4Q | N4Q | LQ | L4Q | L4Q | L4Q | | Ownership % |
| | | | (in million) | | | | | | | | | |
| **CTS Corp.** | **CTS** | **$26.70** | **$879** | **4.09** | **62.8** | **20.2** | **2.88** | **2.08** | **2.00** | **13.23** | **5.23** | **74.9** |
| | | | | | | | | | | | | |
| **Over $1 billion Market Cap.** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Altra Industrial Motion Corp. | AIMC | $47.05 | $1,380 | 12.88 | 32.86 | 19.44 | 3.56 | 1.67 | 2.09 | 14.30 | 1.67 | 103.0 |
| Autoliv Inc. | ALV | $140.75 | $12,240 | 7.49 | 28.90 | 16.10 | 3.03 | 1.18 | 1.25 | 10.24 | 2.01 | 44.5 |
| BorgWarner Inc. | BWA | $52.35 | $11,040 | 8.66 | 37.77 | 12.32 | 2.89 | 1.17 | 1.42 | 8.53 | 1.93 | 100 plus |
| Cooper-Standard Holdings Inc. | CPS | $113.47 | $1,980 | 18.06 | 15.45 | 9.51 | 2.44 | 0.56 | 0.69 | 5.90 | 2.40 | 100 plus |
| Delphi Automotive plc. | DLPH | $51.66 | $4,580 | 44.59 | 10.08 | 10.83 | 4.29 | 0.97 | 1.73 | 9.64 | 1.68 | 38.8 |
| Methode Electronics Inc. | MEI | $39.25 | $1,500 | 16.68 | 16.09 | 13.08 | 2.38 | 1.77 | 1.65 | 8.98 | 1.06 | 92.9 |
| Mercury Systems, Inc | MRCY | $43.42 | $2,090 | 6.96 | 47.45 | 27.48 | 2.71 | 4.69 | 4.95 | 24.81 | 2.93 | 98.3 |
| OSI Systems Inc | OSIS | $55.20 | $1,050 | 3.80 | 85.28 | 14.30 | 1.98 | 1.01 | 1.23 | 7.05 | 1.55 | 100 plus |
| Standard Motor Oroducts Inc. | SMP | $46.37 | $1,050 | 13.34 | 19.63 | 14.18 | 2.22 | 0.95 | 1.02 | 7.85 | 2.62 | 81.2 |
| Sensata Tech. Holdings NV | ST | $52.18 | $8,940 | 15.15 | 29.31 | 14.19 | 4.10 | 2.75 | 3.77 | 14.92 | 1.38 | 100 plus |
| Synaptics Inc. | SYNA | $39.08 | $1,330 | 2.58 | 73.18 | 8.31 | 1.77 | 0.76 | 0.94 | 9.75 | 0.79 | 100 pus |
| TE Connectivity Ltd. | TEL | $98.72 | $34,670 | 13.30 | 28.52 | 16.70 | 3.60 | 2.56 | 2.90 | 13.43 | 2.02 | 93.6 |
| | | | | | | | | | | | | |
| **Mean** | | | | 12.89 | 37.49 | 15.12 | 2.91 | 1.70 | 1.97 | 11.43 | 2.10 | |
| **Median** | | | | 12.88 | 29.31 | 14.19 | 2.88 | 1.18 | 1.65 | 9.75 | 1.93 | |
| | | | | | | | | | | | | |
| **Under $1 billion Market Cap** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| AMA Group Ltd (Aust. $) | AMA.AX | $1.09 | $571 | 11.25 | 33.91 | 17.33 | 3.47 | 1.50 | 1.64 | 16.80 | N/A | N/A |
| LGL Group Inc. | LGL | $5.57 | $15 | 2.70 | 39.79 | N/A | 1.06 | 0.66 | 0.42 | 10.46 | N/A | 31.6 |
| Interlink Electronics | LINK | $5.25 | $39 | 22.15 | 18.10 | N/A | 3.48 | 3.33 | 2.56 | 12.23 | N/A | 0.30 |
| Stoneridge Inc. | SRI | $22.61 | $637 | 40.40 | 8.64 | 13.22 | 2.84 | 0.81 | 0.98 | 8.58 | 56.79 | 89.5 |
| Westport Innovations Inc | WPRT | $2.79 | $359 | N/A | N/A | N/A | 2.69 | 1.24 | 1.19 | N/A | N/A | 16.5 |
| Exco Technology Ltd. (C$) | XTC.TO | 10.06 $ | 427 $ | 13.45 | 10.71 | 8.67 | 1.40 | 0.75 | 0.75 | 5.48 | N/A | N/A |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **Mean** | | | | 17.99 | 22.23 | 13.07 | 2.49 | 1.38 | 1.26 | 10.71 | 56.79 | |
| **Median** | | | | 13.45 | 18.10 | 13.22 | 2.77 | 1.03 | 1.09 | 10.46 | 56.79 | |
| Source: Zacks scr and Yahoo finance | | | | | | | | | | | | |

# PROJECTED INCOME STATEMENT

| CTS Corp. | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Consolidated Statements of Operations | | | | | | | | | | | | | | | | | | | |
| (Dollars in millions except per share data) | | | | | | | | | | | | | | | | | | | |
| Fiscal Year Dec. 31. | 2014A | 2015A | 1Q16 | 2Q16 | 3Q16 | 4Q16 | 2016A | 1Q17 | 2Q17 | 3Q17 | 4Q17 | 2017A | 1Q18 | 2Q18 | 3Q18 | 4Q18 | 2018 E | 2019 E | 2020 E |
| **Net sales** | **$404.02** | **$382.31** | **$96.71** | **$98.69** | **$99.70** | **$101.58** | **$396.68** | **$100.15** | **$105.69** | **$106.24** | **$110.91** | **$422.99** | **$105.16** | **$110.97** | **$111.56** | **$116.46** | **$444.14** | **$466.35** | **$489.66** |
| % Change | | | (1.63) | (1.38) | 9.98 | 8.90 | 3.76 | 3.56 | 7.09 | 6.57 | 9.18 | 6.63 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Cost of Goods Sold | 274.06 | 255.20 | 63.24 | 64.24 | 63.06 | 65.72 | 256.25 | 65.93 | 69.89 | 68.71 | 78.04 | 282.56 | 68.00 | 71.50 | 71.50 | 75.00 | 286.00 | 300.79 | 315.83 |
| S. G. & A. | 59.14 | 57.43 | 14.87 | 15.76 | 16.05 | 15.17 | 61.85 | 15.25 | 15.81 | 15.92 | 24.97 | 71.94 | 15.77 | 16.65 | 16.73 | 17.47 | 66.62 | 69.95 | 73.45 |
| R&D | 22.56 | 22.46 | 6.16 | 5.97 | 6.28 | 5.63 | 24.04 | 6.00 | 6.05 | 6.38 | 6.71 | 25.15 | 6.20 | 6.20 | 6.20 | 6.20 | 24.80 | 24.80 | 24.80 |
| Op Income GAAP | 48.26 | 47.22 | 12.43 | 12.73 | 14.31 | 15.07 | 54.54 | 12.97 | 13.94 | 15.24 | 1.19 | 43.34 | 15.18 | 16.62 | 17.12 | 17.79 | 66.72 | 70.80 | 75.58 |
| Interest Expenses | 2.33 | 2.63 | 0.82 | 1.01 | 0.92 | 0.96 | 3.70 | 0.68 | 0.75 | 0.77 | 1.13 | 3.34 | 1.00 | 1.00 | 1.00 | 1.00 | 4.00 | 4.70 | 5.20 |
| Interest Income | 2.79 | 3.07 | 0.55 | 0.33 | 0.20 | 0.22 | 1.30 | 0.25 | 0.30 | 0.36 | 0.37 | 1.28 | 0.30 | 0.30 | 0.30 | 0.30 | 1.20 | 1.20 | 1.60 |
| Non Op Income | (9.38) | (13.98) | 0.00 | 11.58 | (1.82) | (2.04) | 7.72 | (0.78) | 1.17 | (2.13) | (1.21) | (2.95) | (1.00) | (1.00) | (1.00) | (1.00) | (4.00) | (4.00) | 2.90 |
| Other | 0.00 | (21.43) | (0.20) | (1.45) | (0.05) | (0.92) | (2.61) | 0.46 | (0.73) | 1.26 | 0.93 | 1.92 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 |
| Calc.Pretax | 39.35 | 12.26 | 11.97 | 22.18 | 11.73 | 11.37 | 57.25 | 12.22 | 13.92 | 13.96 | 0.15 | 40.25 | 13.48 | 14.92 | 15.42 | 16.09 | 59.92 | 65.30 | 74.88 |
| Taxes | 12.83 | 5.31 | 4.10 | 7.69 | 8.01 | 3.06 | 22.87 | 3.74 | 3.96 | 4.34 | 13.77 | 25.81 | 3.51 | 3.88 | 4.01 | 4.18 | 15.58 | 16.98 | 19.47 |
| Tax Rate | 32.60 | 43.28 | 34.28 | 34.68 | 68.29 | 26.92 | 39.94 | 30.61 | 28.43 | 31.09 | 9493.79 | 64.11 | 26.00 | 26.00 | 26.00 | 26.00 | 26.00 | 26.00 | 26.00 |
| Other Income | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pro-forma adj. inc. EIDO | 4.81 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Income | 26.52 | 6.95 | 7.86 | 14.49 | 3.72 | 8.31 | 34.38 | 8.48 | 9.97 | 9.62 | (13.62) | 14.44 | 9.98 | 11.04 | 11.41 | 11.90 | 44.34 | 48.32 | 55.41 |
| Net For Common | 26.52 | 42.53 | 7.86 | 7.51 | 5.69 | 8.31 | 29.38 | 8.48 | 9.97 | 9.62 | (13.62) | 14.44 | 9.98 | 11.04 | 11.41 | 11.90 | 44.34 | 48.32 | 55.41 |
| Shares Used, millions | 34.13 | 32.96 | 33.01 | 33.23 | 33.25 | 33.34 | 33.00 | 33.36 | 33.50 | 33.50 | 32.94 | 33.50 | 33.50 | 33.50 | 33.50 | 33.50 | 33.50 | 33.50 | 33.50 |
| Earnings Per Share | | | | | | | | | | | | | | | | | | | |
| **EPS** | **$0.78** | **$0.21** | **$0.24** | **$0.44** | **$0.11** | **$0.25** | **$1.04** | **$0.25** | **$0.30** | **$0.29** | **($0.41)** | **$0.43** | **$0.30** | **$0.33** | **$0.34** | **$0.36** | **$1.32** | **$1.44** | **$1.65** |
| **Pro Forma EPS** | **$0.97** | **$1.01** | **$0.24** | **$0.23** | **$0.17** | **$0.25** | **$0.88** | **$0.25** | **$0.30** | **$0.29** | **($0.41)** | **$0.43** | **$0.30** | **$0.33** | **$0.34** | **$0.36** | **$1.32** | **$1.44** | **$1.65** |
| **DPS** | **$0.16** | | | | | | | | | | | | | | | | | | |
| **Backlog, as of January** | **$61.78** | | | | | | **1,518** | **1,538** | **1,542** | | | | | | | | | | |
| **New business awards** | **484** | **561** | **118** | **135** | **103** | **132** | | | | | | | | | | | | | |
| **EIDO Extra Items & discontinued operations** | | | | | | | | | | | | | | | | | | | |
| **The account presentation have been changed by Zacks scr and may not be the same as presented by the company.** | | | | | | | | | | | | | | | | | | | |
| **EIDO : Extra Items and Discontinued Operations** | | | | | | | | | | | | | | | | | | | |

# BALANCE SHEET

| CTS Corp. | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Consolidated Balance Sheet (in $ millions) | | | | | | | | | | | | | | | |
| Fiscal Year Dec. 31. | | | | | | | | | | | | | | | |
| | **2012A** | **2013A** | **2014A** | **1Q15** | **2Q15** | **3Q15** | **4Q15** | **1Q16** | **2Q16** | **3Q16** | **4Q16** | **1Q17** | **2Q17** | **3Q17** | **4Q17** |
| **ASSETS** | | | | | | | | | | | | | | | |
| Cash & Equiv. | 109.57 | 124.37 | 134.51 | 138.33 | 146.79 | 150.76 | 156.93 | 130.96 | 119.91 | 114.43 | 113.81 | 121.82 | 107.81 | 116.15 | 113.57 |
| A/R | 89.34 | 62.67 | 56.89 | 67.06 | 63.05 | 59.21 | 54.56 | 64.79 | 62.13 | 62.38 | 62.61 | 63.02 | 66.74 | 64.86 | 70.58 |
| Inventories | 81.75 | 32.23 | 27.89 | 28.58 | 30.42 | 26.97 | 24.60 | 26.06 | 25.98 | 29.18 | 28.65 | 30.95 | 36.09 | 35.31 | 36.60 |
| Other | 28.63 | 17.01 | 21.11 | 20.74 | 21.40 | 20.77 | 15.89 | 13.84 | 12.46 | 10.85 | 10.64 | 11.43 | 11.93 | 13.45 | 12.86 |
| Total current assets | 309.30 | 236.27 | 240.40 | 254.71 | 261.66 | 257.71 | 251.98 | 235.65 | 220.47 | 216.84 | 215.71 | 227.22 | 222.57 | 229.77 | 233.61 |
| Gross Plant | 334.42 | 74.87 | 71.41 | 70.46 | 70.17 | 68.93 | 69.87 | 77.46 | 76.97 | 79.33 | 82.11 | 83.27 | 85.17 | 84.29 | 88.25 |
| Acc. Deprn | 240.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Investments & Prepaid pensions | 0.00 | 56.40 | 32.10 | 34.30 | 36.56 | 38.77 | 33.78 | 35.75 | 37.71 | 39.68 | 46.18 | 48.11 | 50.11 | 52.10 | 57.05 |
| Intangibles | 83.53 | 72.83 | 68.64 | 67.67 | 66.68 | 65.70 | 68.62 | 130.64 | 129.31 | 127.67 | 126.11 | 124.58 | 138.64 | 137.59 | 135.99 |
| Deferred taxes & Other | 74.64 | 39.90 | 44.37 | 44.06 | 54.20 | 57.63 | 59.88 | 60.85 | 55.37 | 50.05 | 47.58 | 44.52 | 41.90 | 39.53 | 22.79 |
| **All Assets** | 561.19 | 480.27 | 456.93 | 471.20 | 489.27 | 488.74 | 484.13 | 540.34 | 519.83 | 513.57 | 517.70 | 527.70 | 538.39 | 543.28 | 537.69 |
| | | | | | | | | | | | | | | | |
| **LIABILITIES AND NET WORTH** | | | | | | | | | | | | | | | |
| Debt Due 1 Yr | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Notes Payable | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.01 | 1.01 | 1.06 | 0.00 | 0.00 |
| A/P | 67.97 | 47.05 | 43.34 | 44.17 | 45.72 | 39.48 | 40.30 | 44.03 | 41.68 | 43.29 | 40.05 | 41.94 | 42.66 | 45.48 | 49.20 |
| Taxes/Payroll | 16.57 | 20.82 | 11.28 | 9.21 | 10.36 | 9.09 | 7.15 | 7.65 | 8.50 | 11.88 | 11.37 | 7.59 | 8.63 | 11.37 | 11.87 |
| Other | 30.49 | 27.25 | 25.36 | 29.47 | 27.40 | 43.03 | 53.91 | 48.85 | 46.92 | 45.97 | 45.71 | 42.46 | 42.21 | 43.99 | 41.34 |
| Total current liabilities | 115.04 | 95.12 | 79.98 | 82.85 | 83.48 | 91.60 | 101.35 | 100.53 | 97.10 | 101.14 | 98.13 | 93.00 | 94.56 | 100.84 | 102.41 |
| Conv. Debt | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| L.T.Debt | 153.50 | 75.00 | 75.00 | 83.20 | 88.70 | 90.50 | 90.70 | 141.30 | 110.80 | 96.00 | 89.10 | 94.00 | 92.80 | 82.30 | 76.30 |
| Other LT | 24.89 | 7.94 | 3.05 | 2.96 | 2.91 | 2.73 | 2.70 | 3.07 | 2.20 | 3.10 | 5.58 | 7.61 | 6.91 | 6.82 | 7.20 |
| Def. Taxes & ITC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.79 |
| Other | 0.00 | 5.48 | 9.11 | 9.05 | 8.65 | 8.31 | 7.73 | 7.19 | 7.11 | 7.07 | 7.01 | 7.01 | 7.63 | 6.71 | 6.18 |
| All Liabilities | 293.43 | 183.54 | 167.14 | 178.06 | 183.74 | 193.14 | 202.48 | 252.09 | 217.20 | 207.30 | 199.82 | 201.61 | 201.91 | 196.67 | 193.88 |
| Pref.Stock | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Common Stock | 291.51 | 297.16 | 299.89 | 300.71 | 300.87 | 300.90 | 300.91 | 302.14 | 302.15 | 302.16 | 302.83 | 303.74 | 304.72 | 304.73 | 304.78 |
| Surplus | 40.01 | 39.63 | 39.15 | 39.55 | 40.24 | 40.48 | 41.17 | 39.19 | 39.82 | 40.57 | 40.52 | 38.99 | 38.76 | 39.53 | 41.08 |
| Retained Earnings | 367.80 | 359.00 | 380.15 | 385.10 | 402.86 | 396.80 | 381.84 | 388.39 | 401.57 | 403.98 | 410.98 | 418.15 | 426.80 | 435.10 | 420.16 |
| Other | (120.60) | (81.90) | (104.23) | (104.17) | (101.90) | (101.79) | (99.01) | (98.21) | (97.65) | (97.18) | (93.19) | (91.53) | (90.54) | (89.49) | (78.96) |
| Treasury Stock | 310.96 | 317.17 | 325.17 | 328.06 | 336.54 | 340.79 | 343.26 | 343.26 | 343.26 | 343.26 | 343.26 | 343.26 | 343.26 | 343.26 | 343.26 |
| Net Worth | 267.76 | 296.73 | 289.79 | 293.13 | 305.53 | 295.60 | 281.65 | 288.25 | 302.63 | 306.27 | 317.88 | 326.08 | 336.48 | 346.61 | 343.81 |
| **Total liabilities & stockholders' equity** | 561.19 | 480.27 | 456.93 | 471.20 | 489.27 | 488.74 | 484.13 | 540.34 | 519.83 | 513.57 | 517.70 | 527.70 | 538.39 | 543.28 | 537.69 |
| | | | | | | | | | | | | | | | |
| Shares outstanding in millions | 33.922 | 33.601 | 33.618 | 33.411 | 33.08 | 32.683 | 32.5 | 32.63 | 32.63 | 32.63 | 32.63 | 32.63 | 32.63 | 32.63 | 32.94 |
| Backlog on Jan. 15 of each year. | | 49.80 | 55.82 | 61.78 | | | | | | | | | | | |
| Orders for each period/Backlog | | | | 192.00 | 169.00 | 95.00 | 105.00 | 118.00 | 135.00 | 103.00 | 132.00 | 1538.00 | 1542.00 | 1698.00 | 1700.00 |

## SOURCE & USE OF FUNDS

| | | | | | | |
|---|---|---|---|---|---|---|
| **CTS Corp.** | | | | | | |
| Condensed Consolidated Statements of Cash Flow s | | | | | | |
| Fiscal Year Dec. 31. | | | | | | |
| | **2012A** | **2013A** | **2014A** | **2015A** | **2016A** | **2017A** |
| Cash flow from operations: | | | | | | 9 months |
| Net (Loss) Income | 20.33 | (3.93) | 26.52 | 6.95 | 34.38 | 28.07 |
| Depreciation & amortization | 19.62 | 21.17 | 16.97 | 16.25 | 18.99 | 15.06 |
| Amortization of goodw ill | | | | | | |
| | | | | | | |
| Stock issued for services | | | | | | |
| Stock based compensation | 4.10 | 4.22 | 2.66 | 3.20 | 2.74 | 2.51 |
| Impairment of machinery | 2.54 | 3.77 | 0.43 | | 3.05 | |
| Prepaid pension asset | (7.43) | (5.74) | (8.43) | (8.28) | | |
| Other | 2.49 | 18.09 | (5.74) | 20.50 | (11.96) | 1.33 |
| **Net cash provided by (used in) operating activites** | **41.65** | **37.57** | **32.42** | **38.63** | **47.20** | **46.97** |
| | | | | | | |
| Cash flow from investments: | | | | | | |
| Purchase of PP&E | (91.65) | (13.98) | (12.95) | (9.72) | (20.50) | (11.99) |
| Proceeds from disposal of PP&E | 0.50 | 76.77 | 4.95 | 1.88 | 12.30 | |
| Other | 17.06 | | | (1.29) | (73.06) | (18.63) |
| **Net cash provided by (used in) investing activities** | **(74.09)** | **62.79** | **(8.00)** | **(9.13)** | **(81.26)** | **(30.62)** |
| | | | | | | |
| Cash flow from financing activities: | | | | | | |
| Proceeds from issuance of common stock | | | | | | |
| Proceeds (payment) on lines of credit, net | (2.27) | (2.22) | (0.81) | | | |
| Purchase of treasury stock | (4.76) | (4.87) | (5.37) | (0.02) | | |
| Proceeds from debt | 5.54 | 3.79 | 1,030.20 | 1.36 | (1.17) | 1.17 |
| Dividends paid | (4.76) | (4.87) | (5.37) | (5.29) | (5.23) | 3.94 |
| Payment on debt | (5.46) | (3.87) | (1,030.20) | (1.34) | | (1.17) |
| Other | 77.51 | (74.52) | (3.45) | (2.01) | (3.36) | (17.73) |
| **Net cash provided by (used in) financing activities** | **65.60** | **(85.56)** | **(14.29)** | **(7.31)** | **(9.04)** | **(13.79)** |
| | | | | | | |
| Increase (decrease) in cash and equivalents | 33.16 | 14.81 | 10.13 | 22.19 | (43.10) | 2.56 |
| Cash & equivalents at beginning of period | 76.41 | 109.57 | 124.37 | 134.51 | 156.70 | 113.60 |
| Cash & equivalents at end of period | 109.57 | 124.37 | 134.51 | 156.70 | 113.60 | 116.15 |
| | | | | | | |

## HISTORICAL STOCK PRICE

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